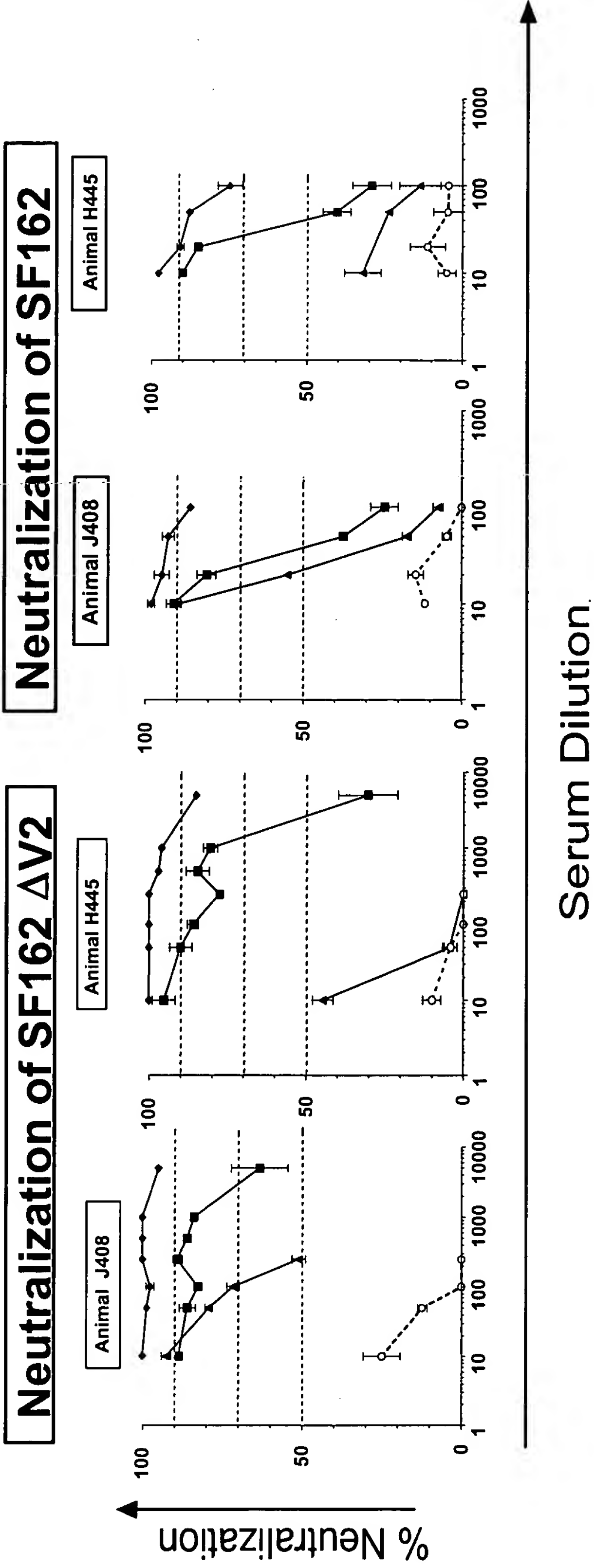
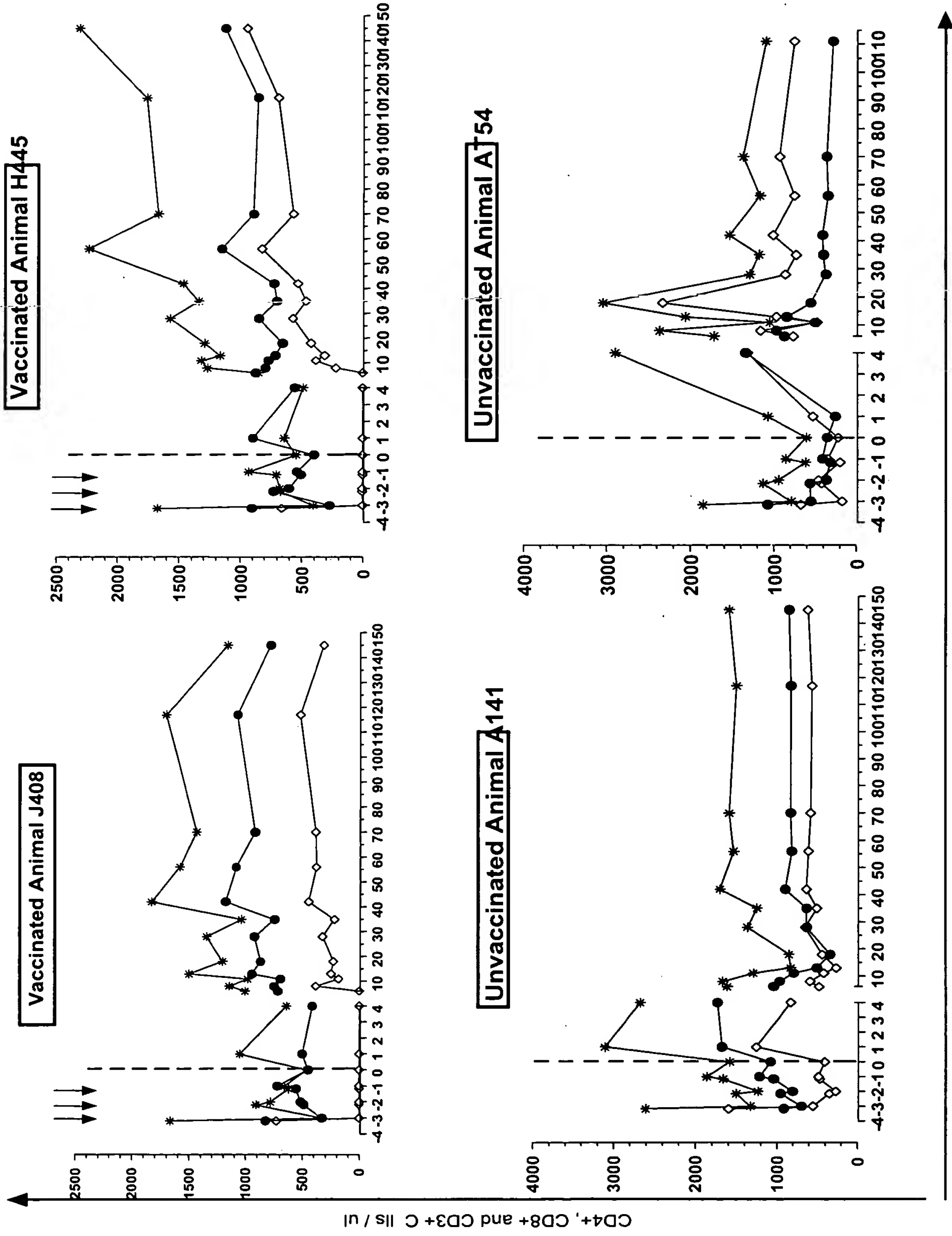


2570-1-001N FIGURE 1

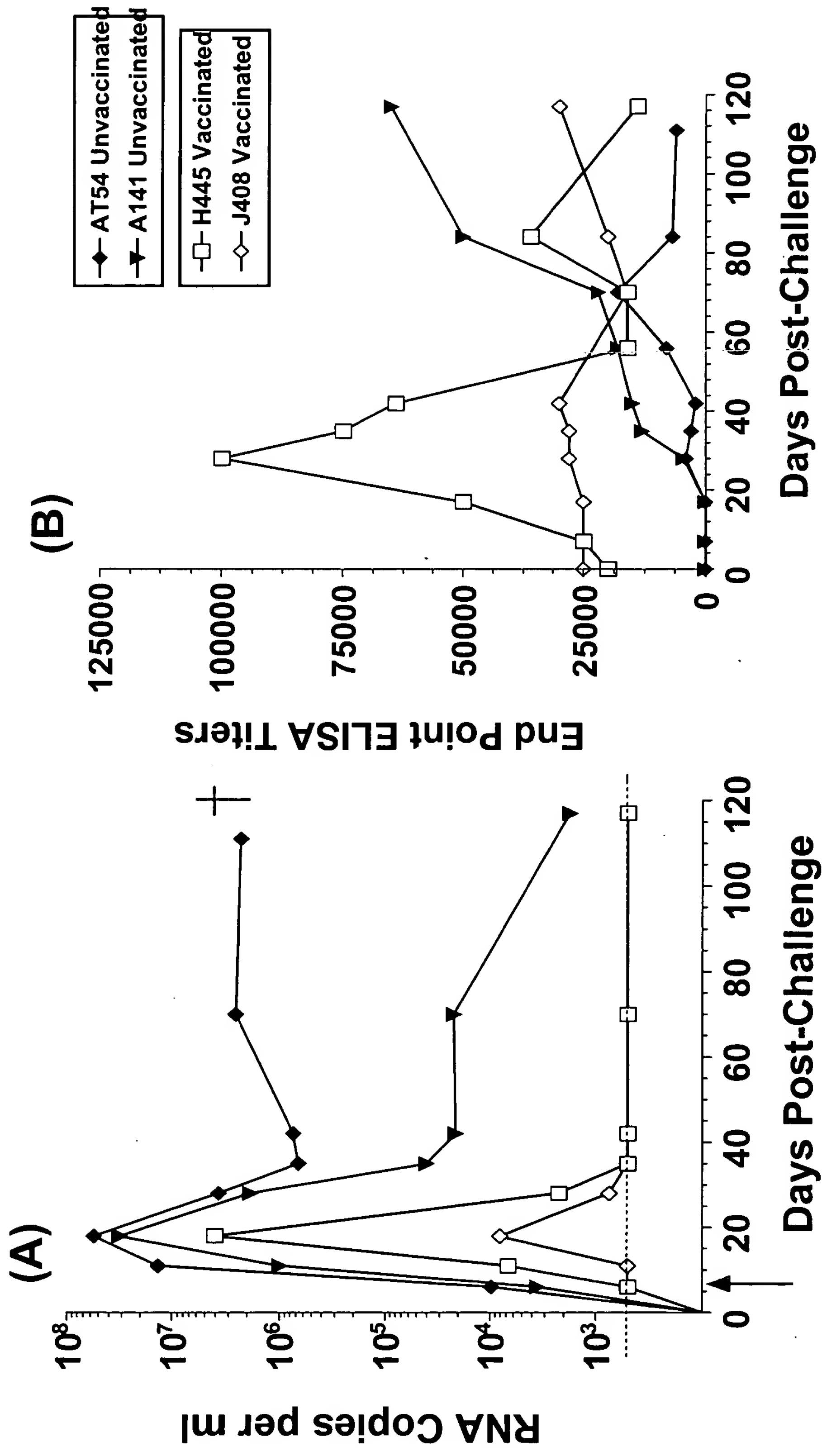


2570-1-001N FIGURE 2

2570-1-001N FIGURE 3

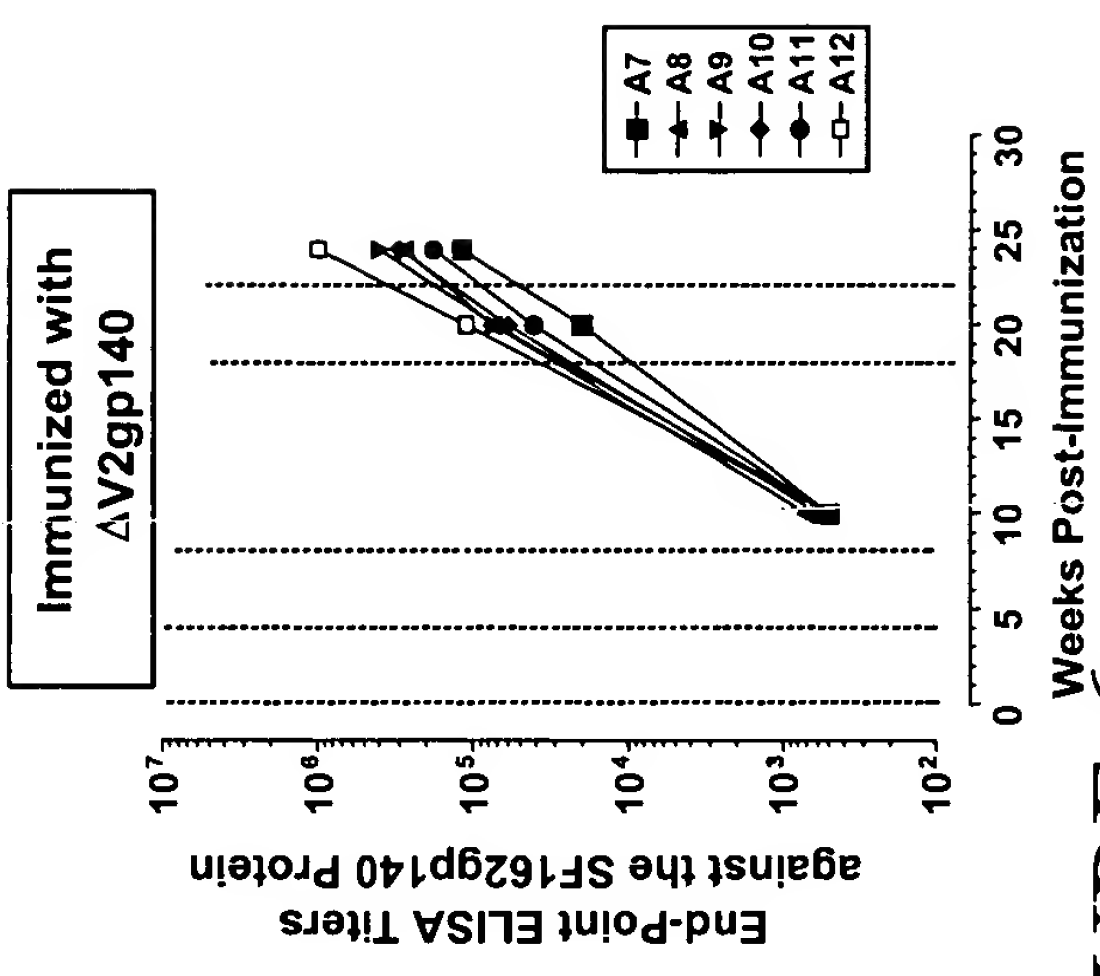
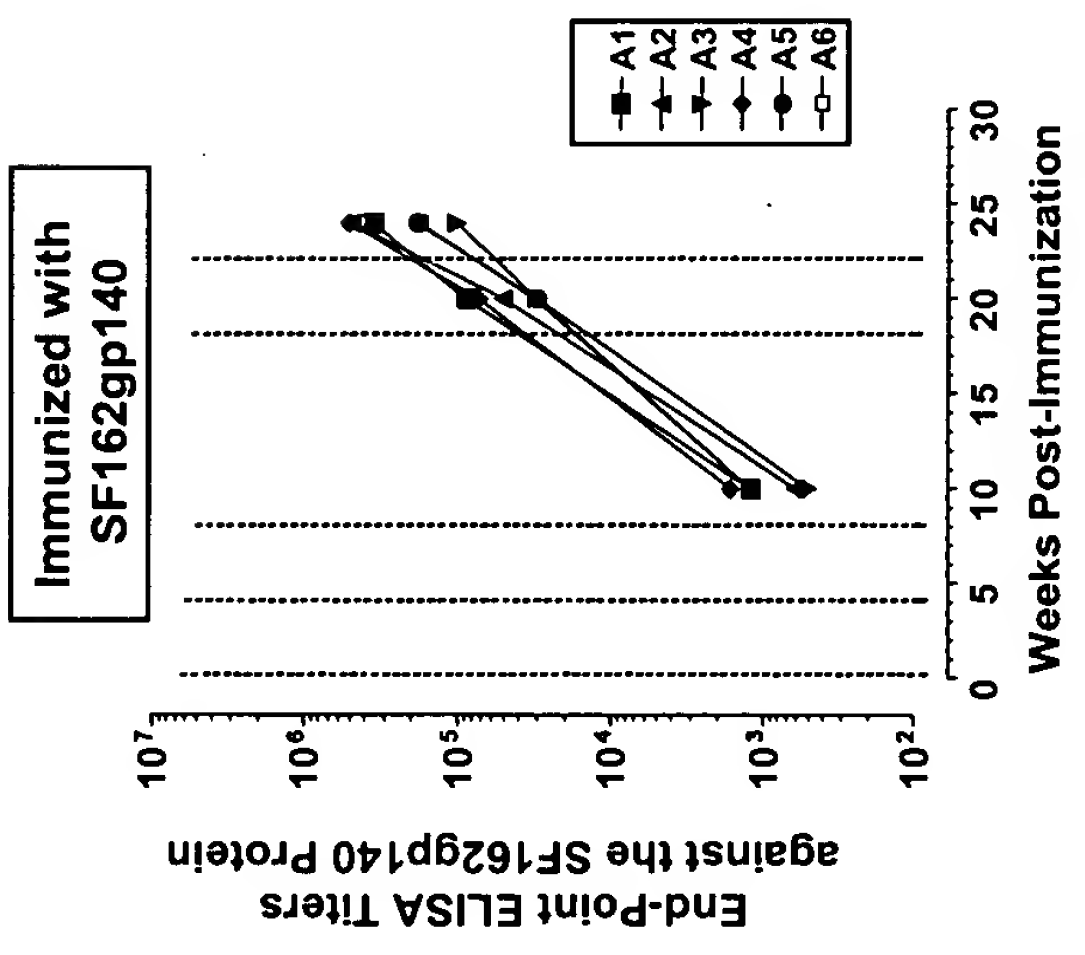
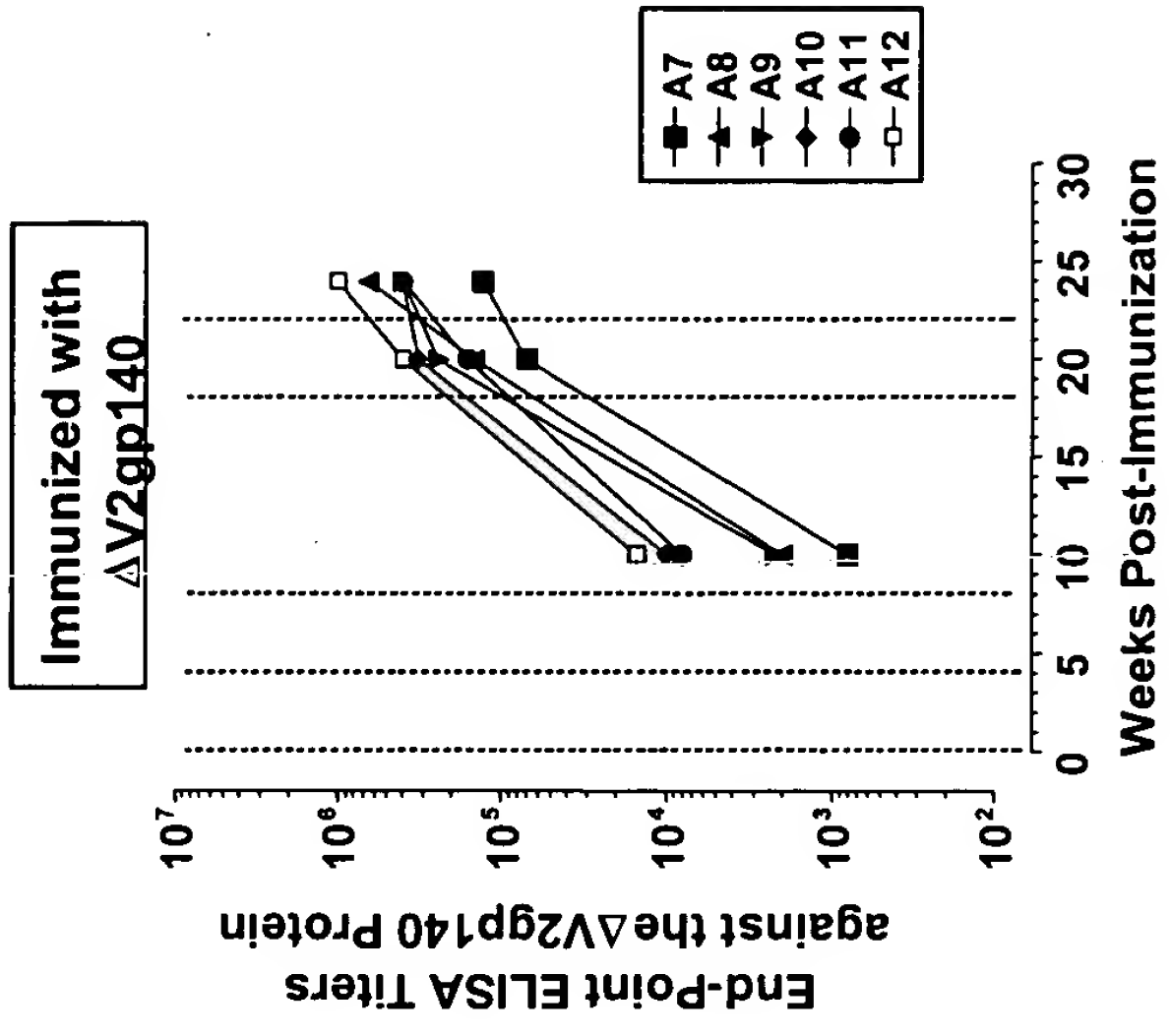
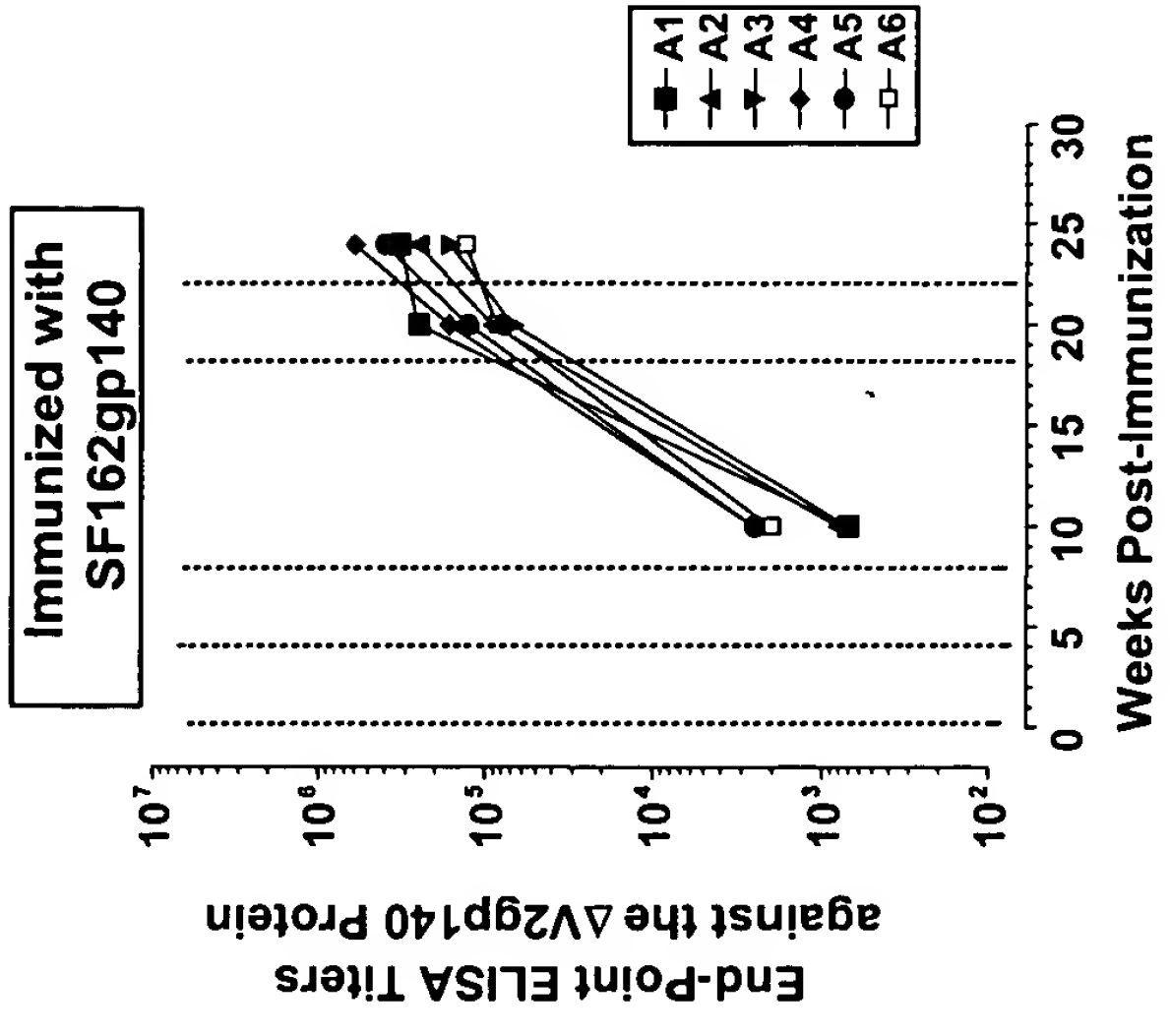


2570-1-001N FIGURE 4



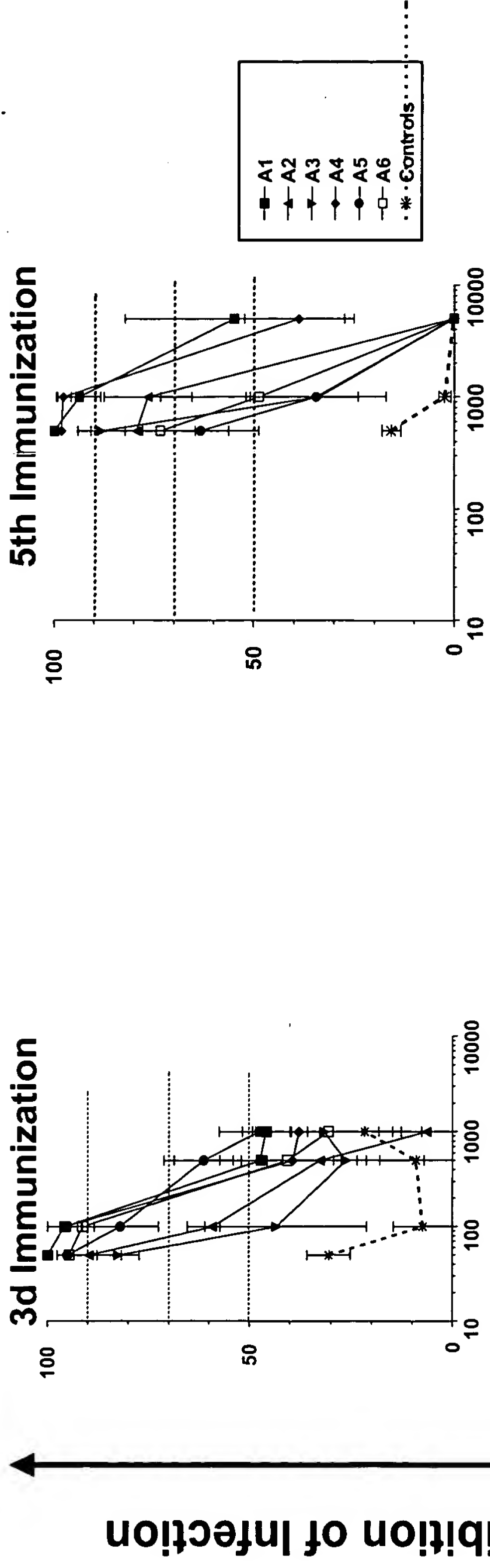
[illegible]

2570-1-001N FIGURE 5

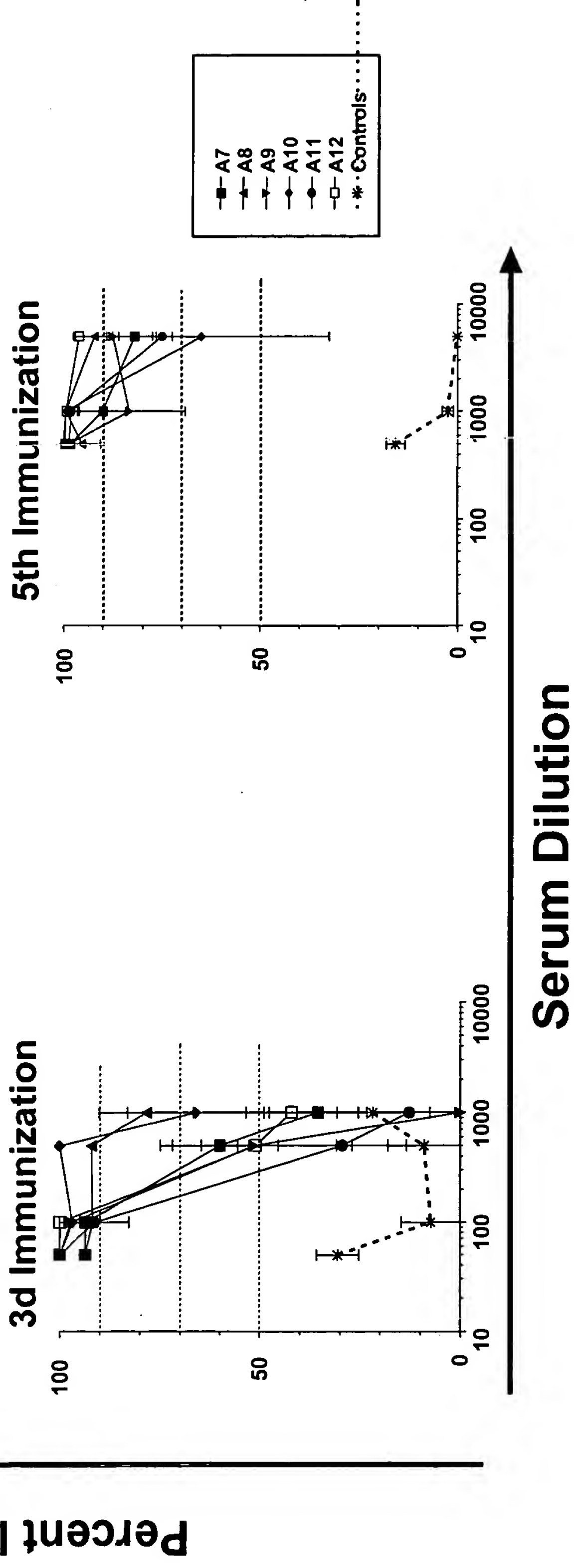


2570-1-001N FIGURE 6

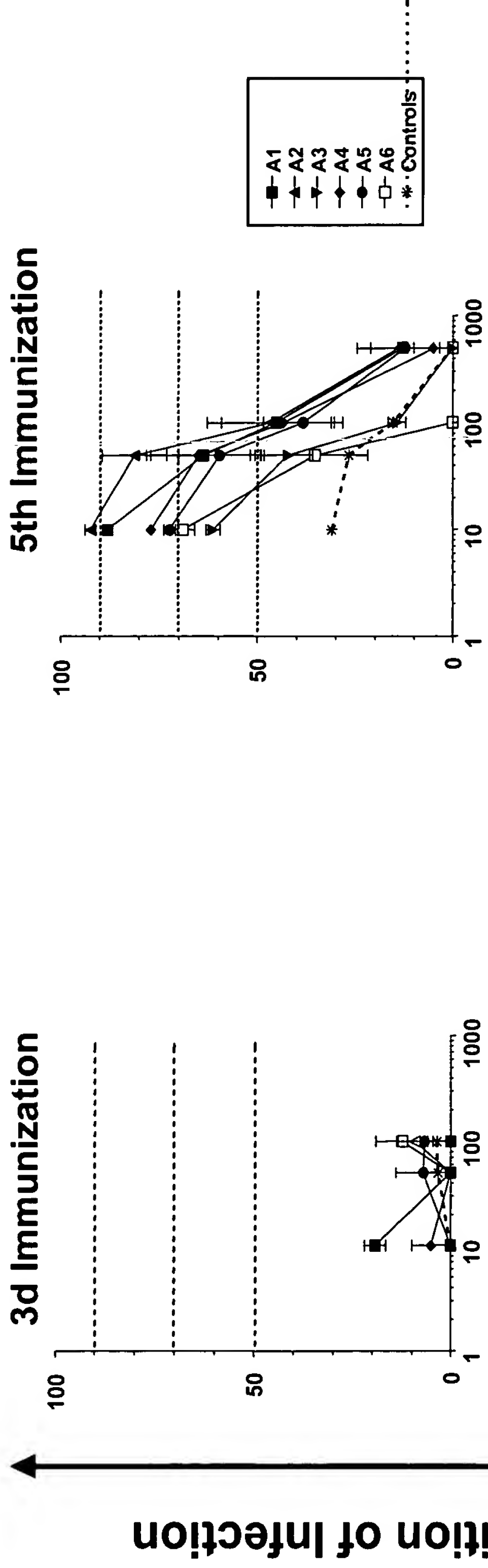
Animals immunized with SF162gp140



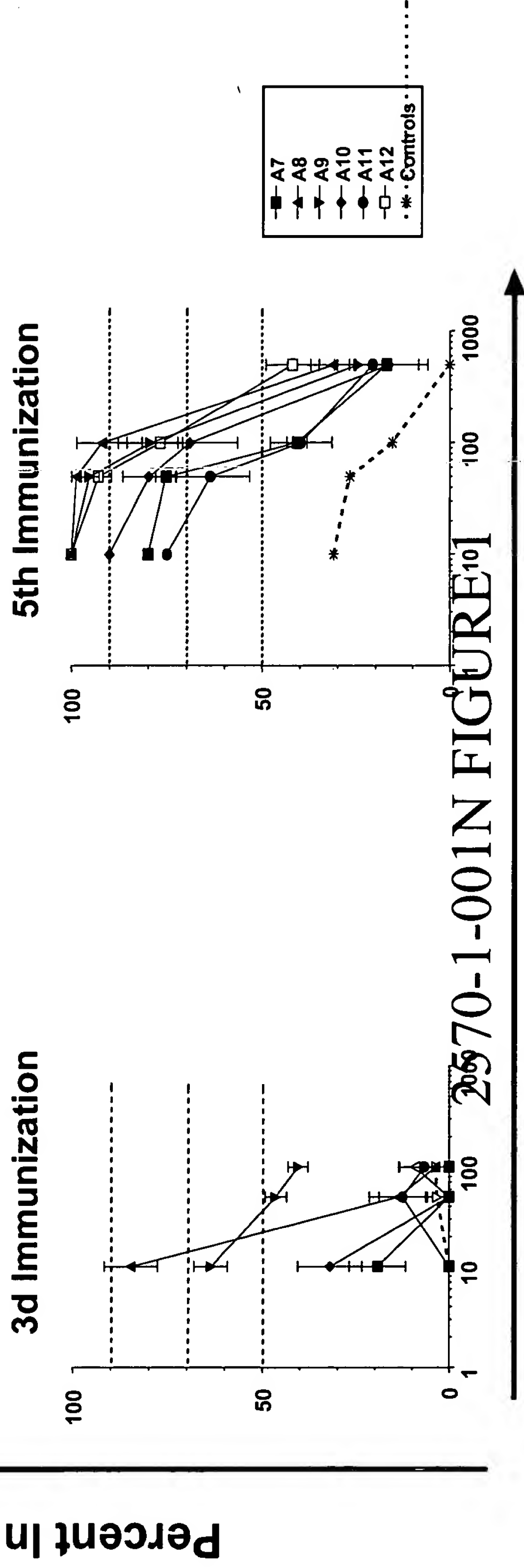
Animals immunized with Δ V2gp140



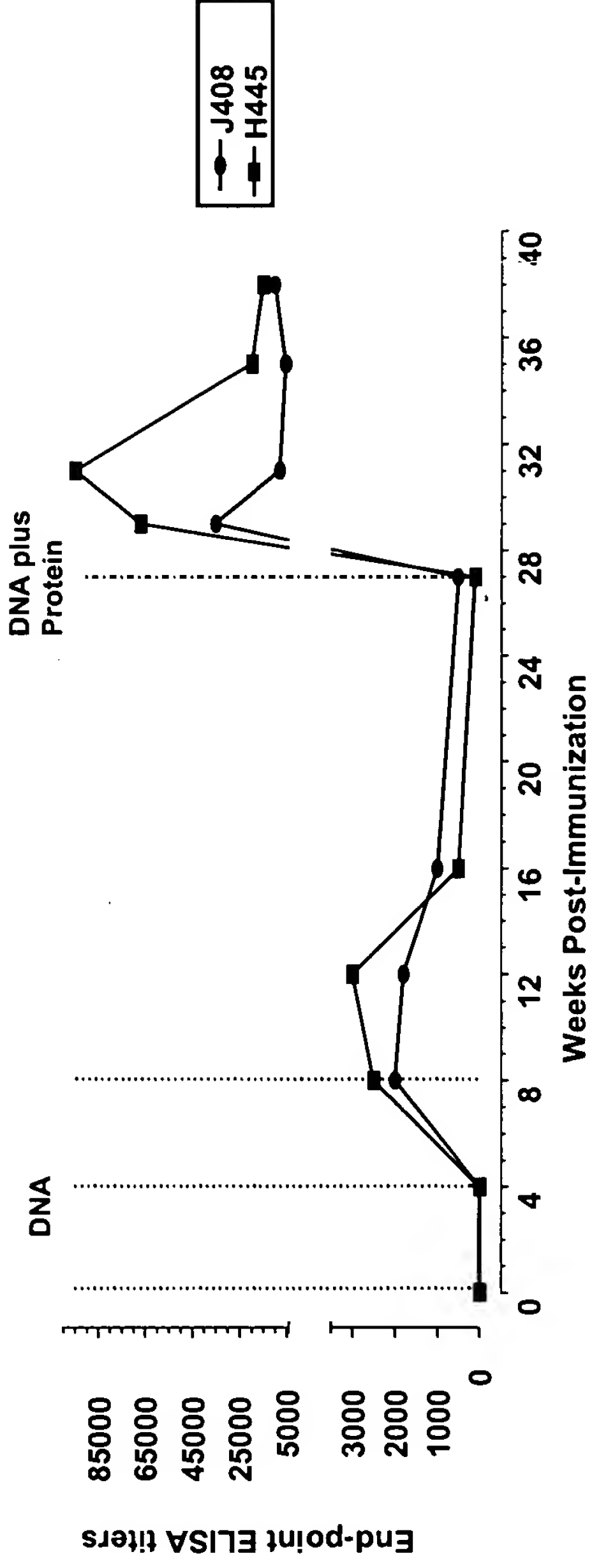
Animals Immunized with SF162gp140



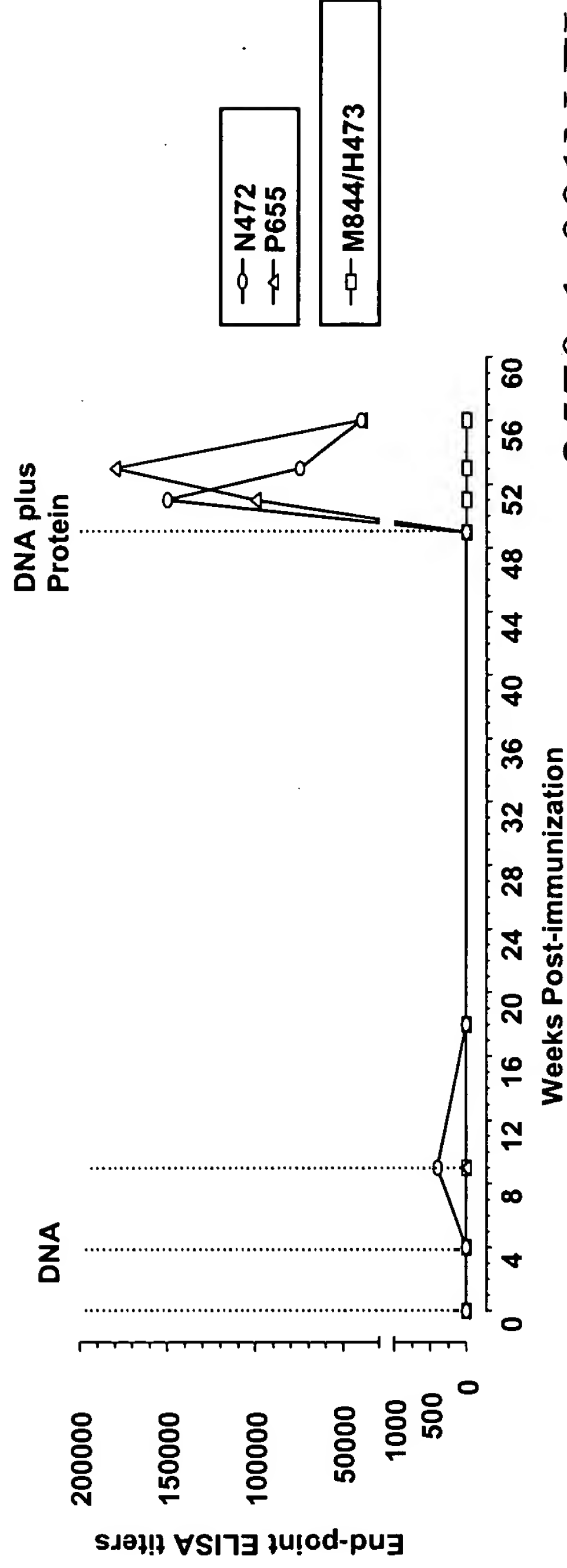
Animals immunized with ΔV2gp140



Immunization with the modified Δ V2gp140 immunogen

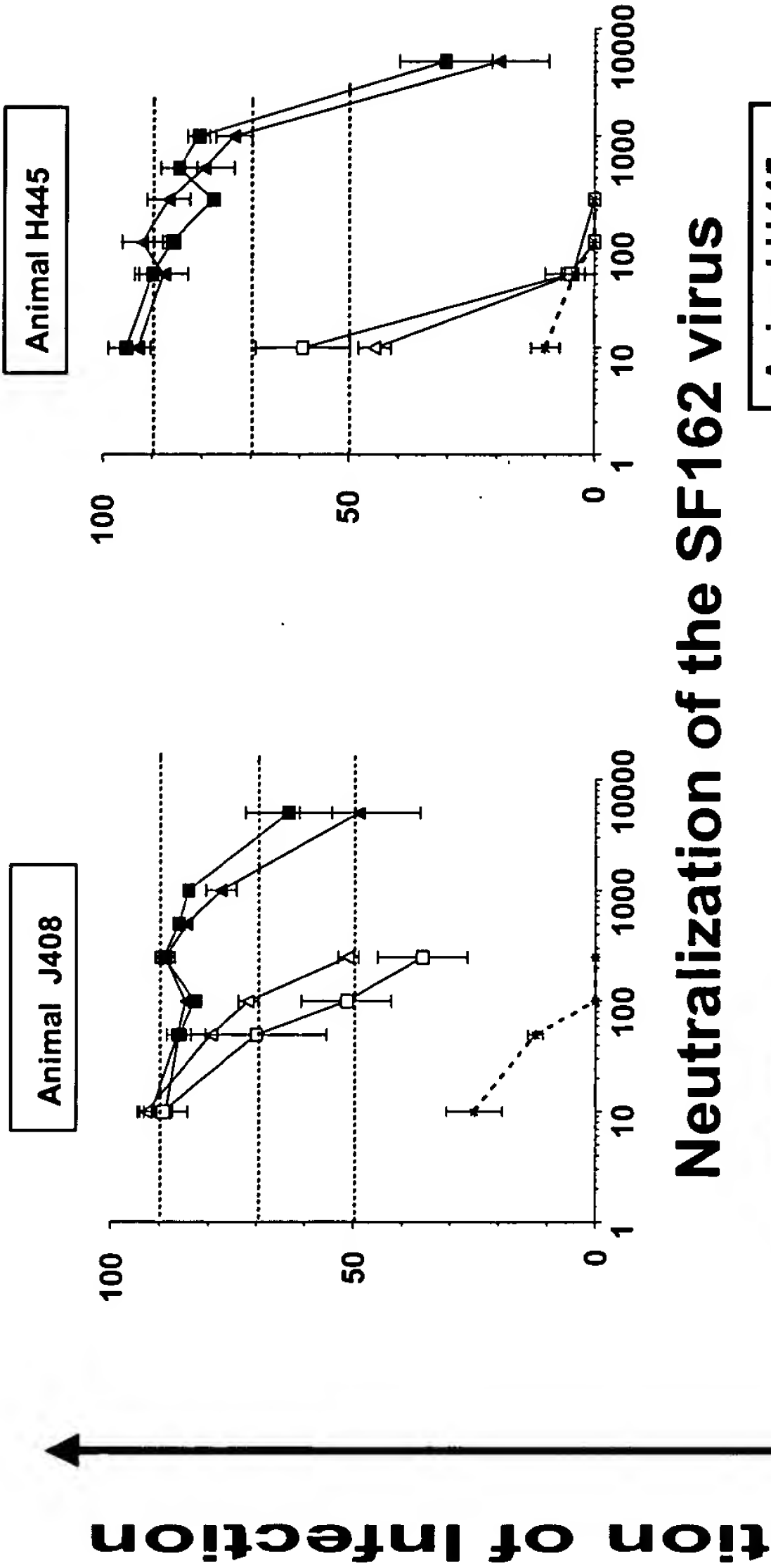


Immunization with the unmodified SF162gp140 immunogen

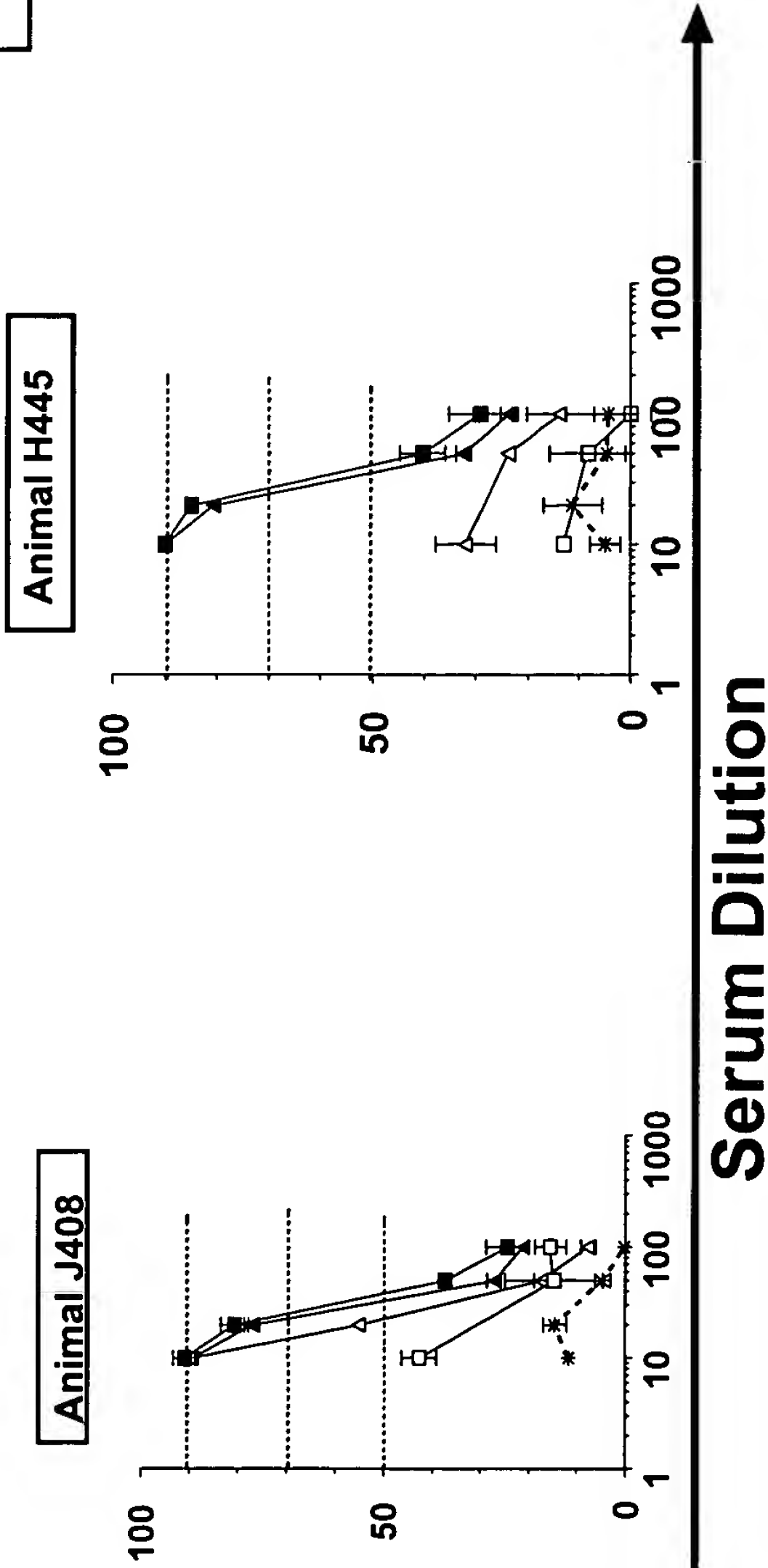


Neutralization of the SF162

Δ V2 virus



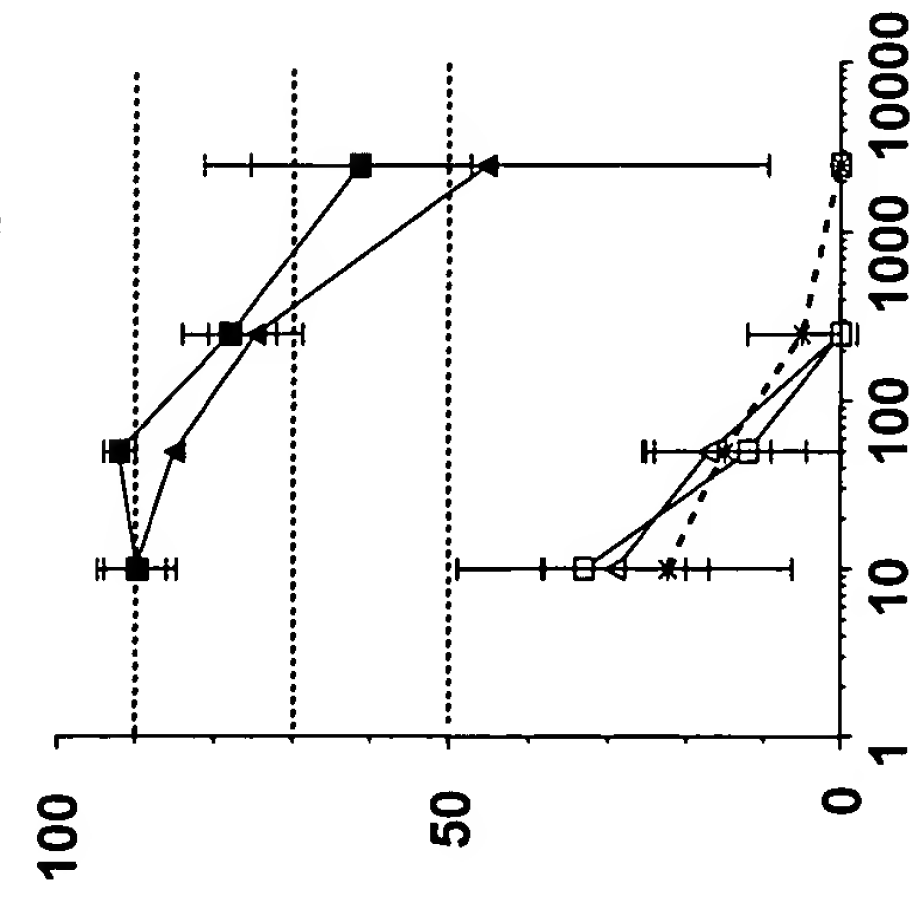
Neutralization of the SF162 virus



Serum Dilution

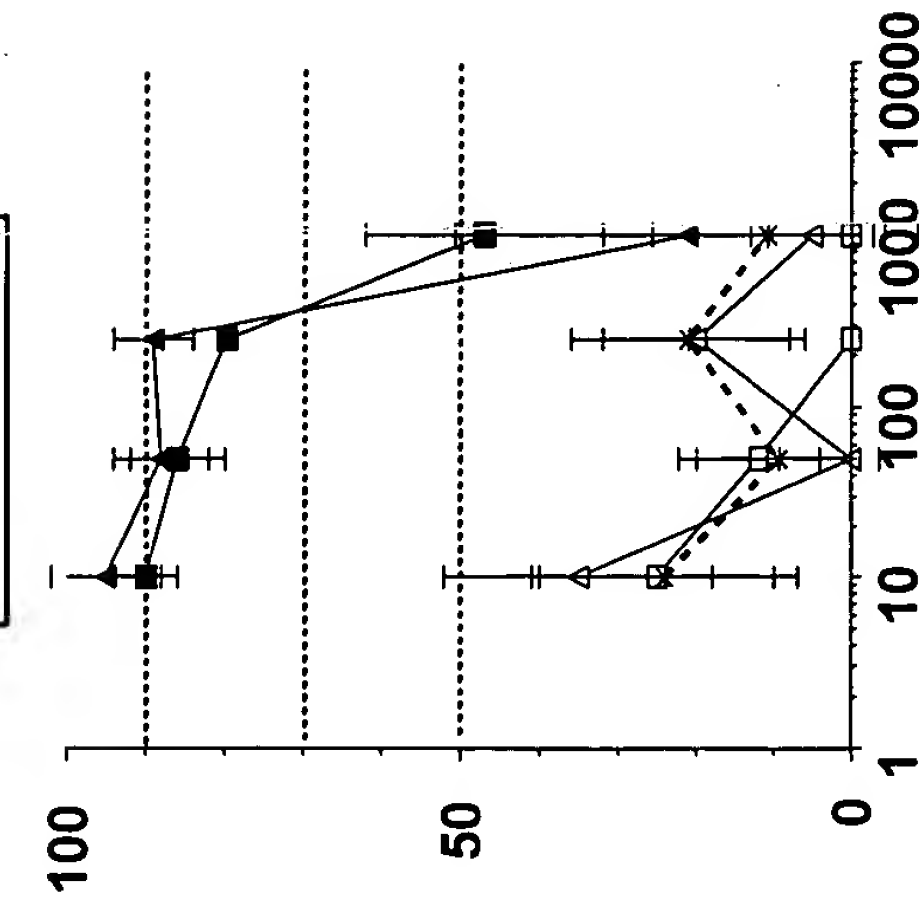
Neutralization of the SF162

Animal N472



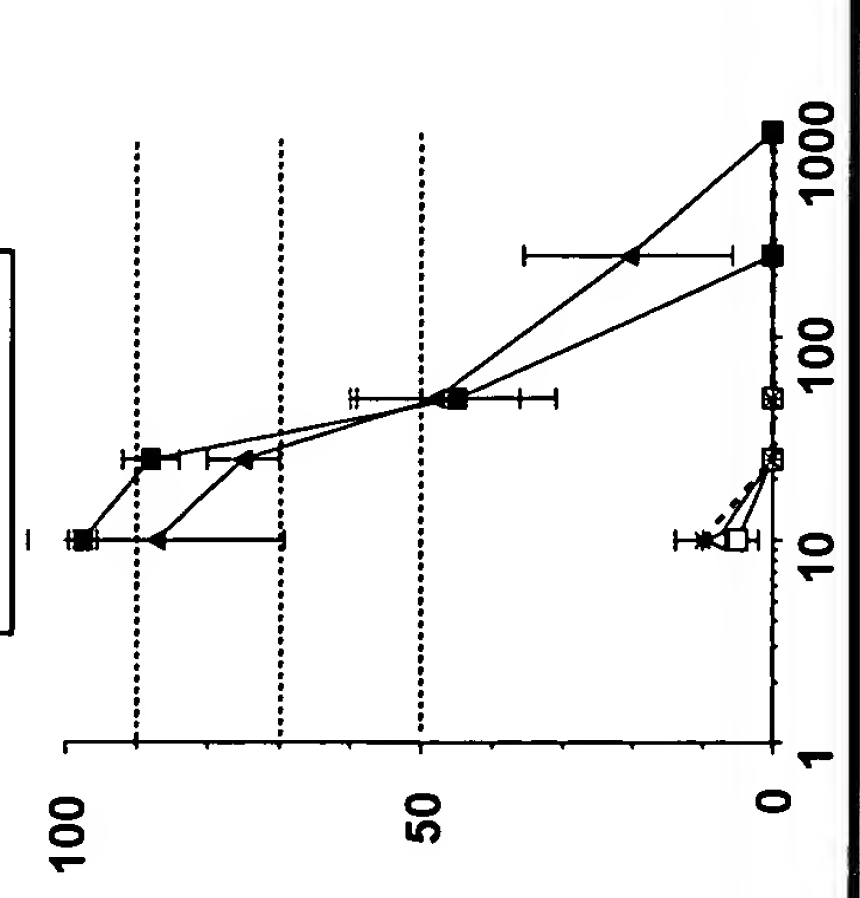
Δ V2 virus

Animal P655

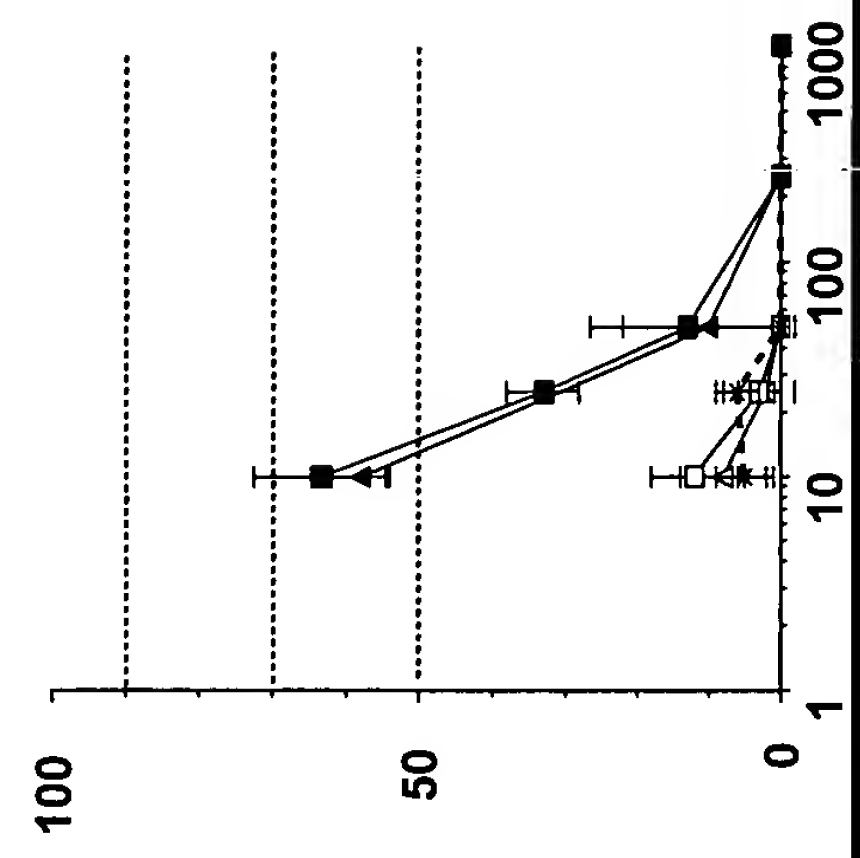


Neutralization of the SF162 virus

Animal N472



Animal P655

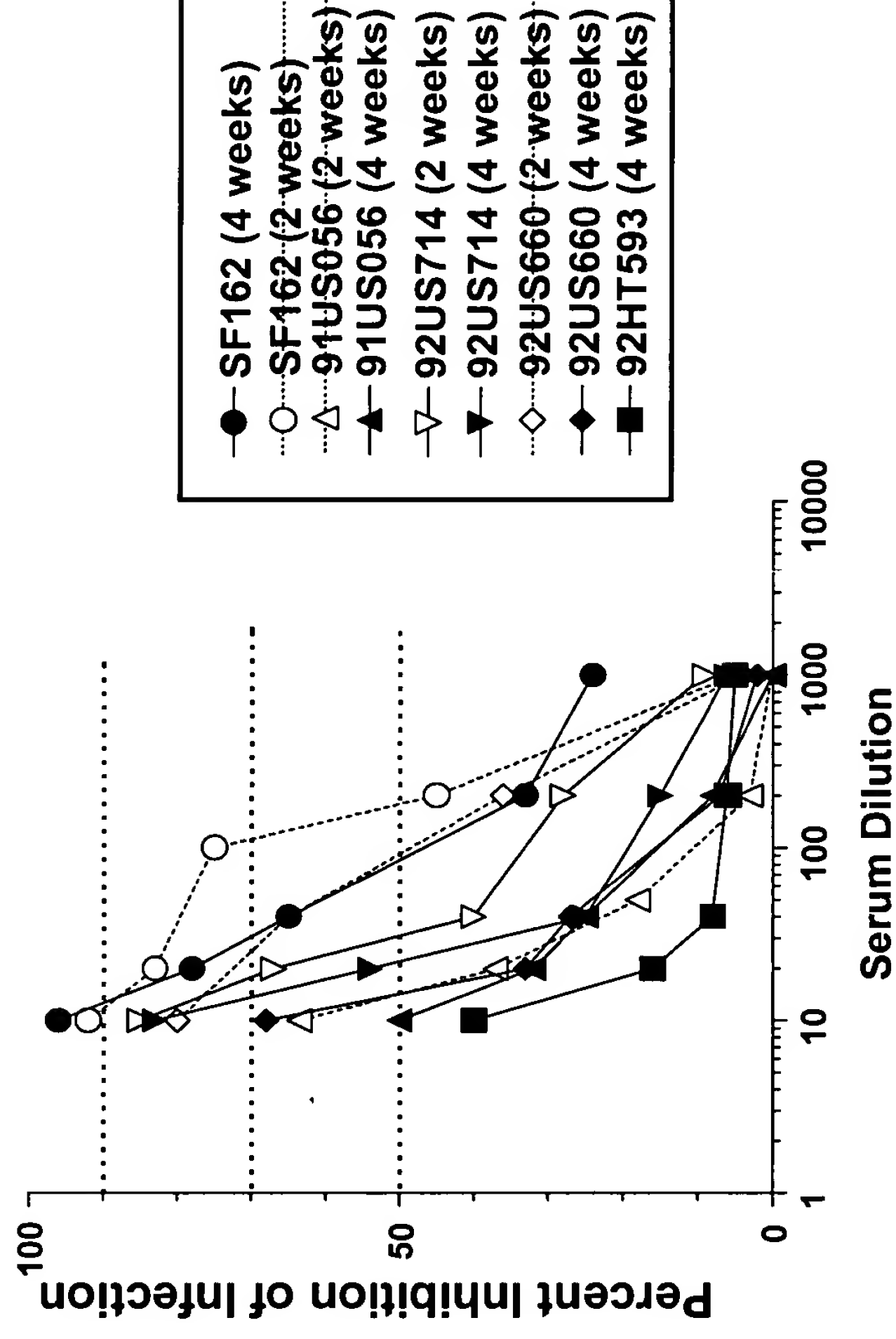
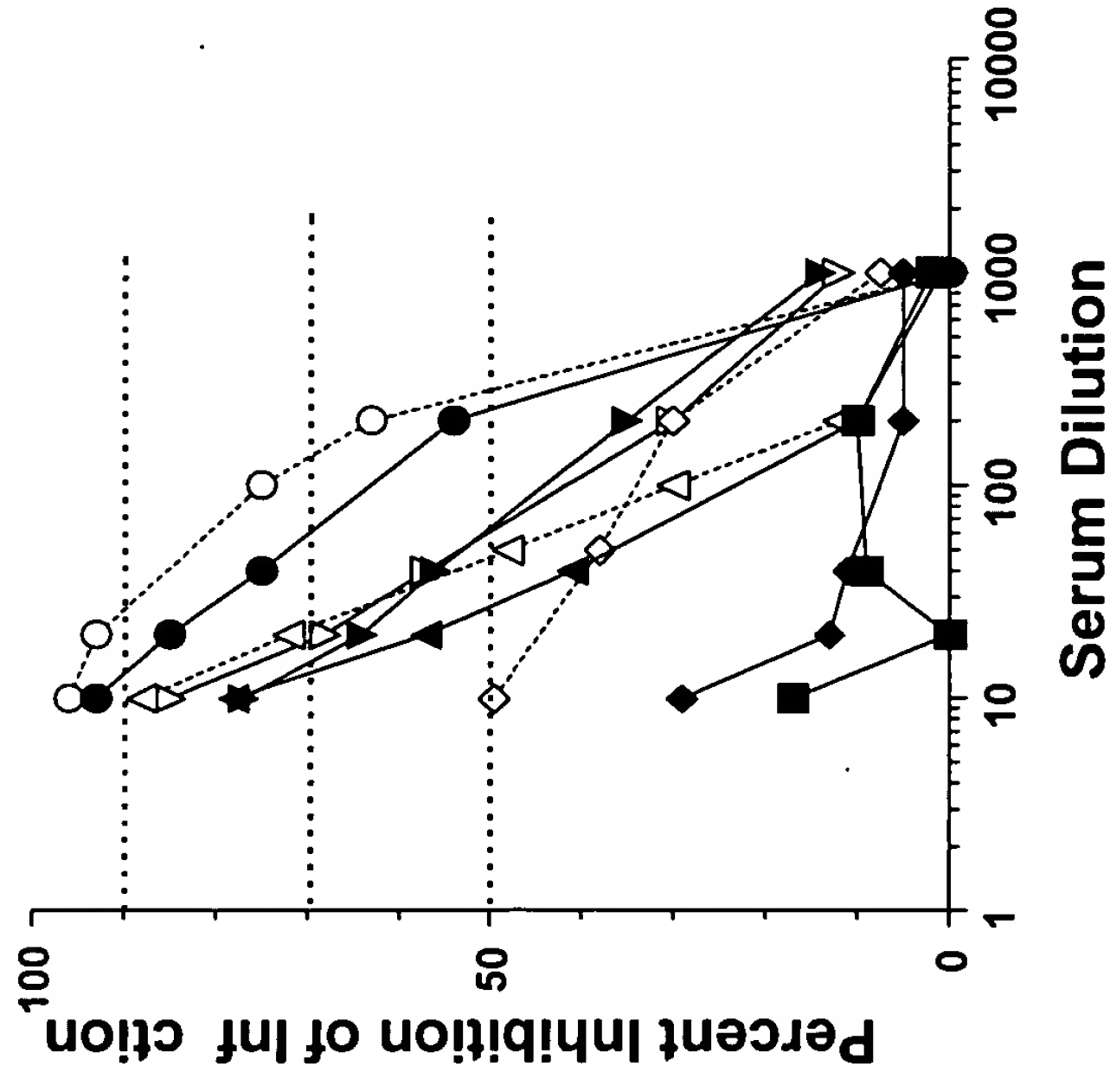


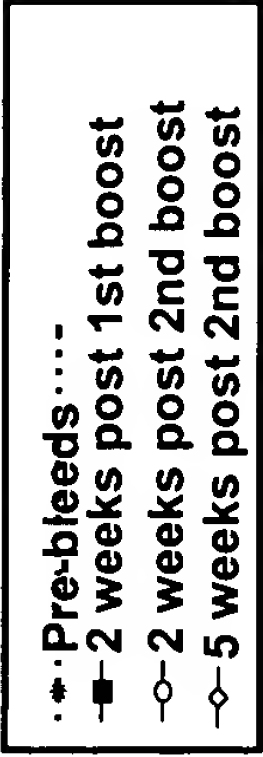
Serum Dilution

.* Pre-bleeds
□ 2nd DNA
△ 3d DNA
■ 2 weeks post boost
▲ 4 weeks post boost

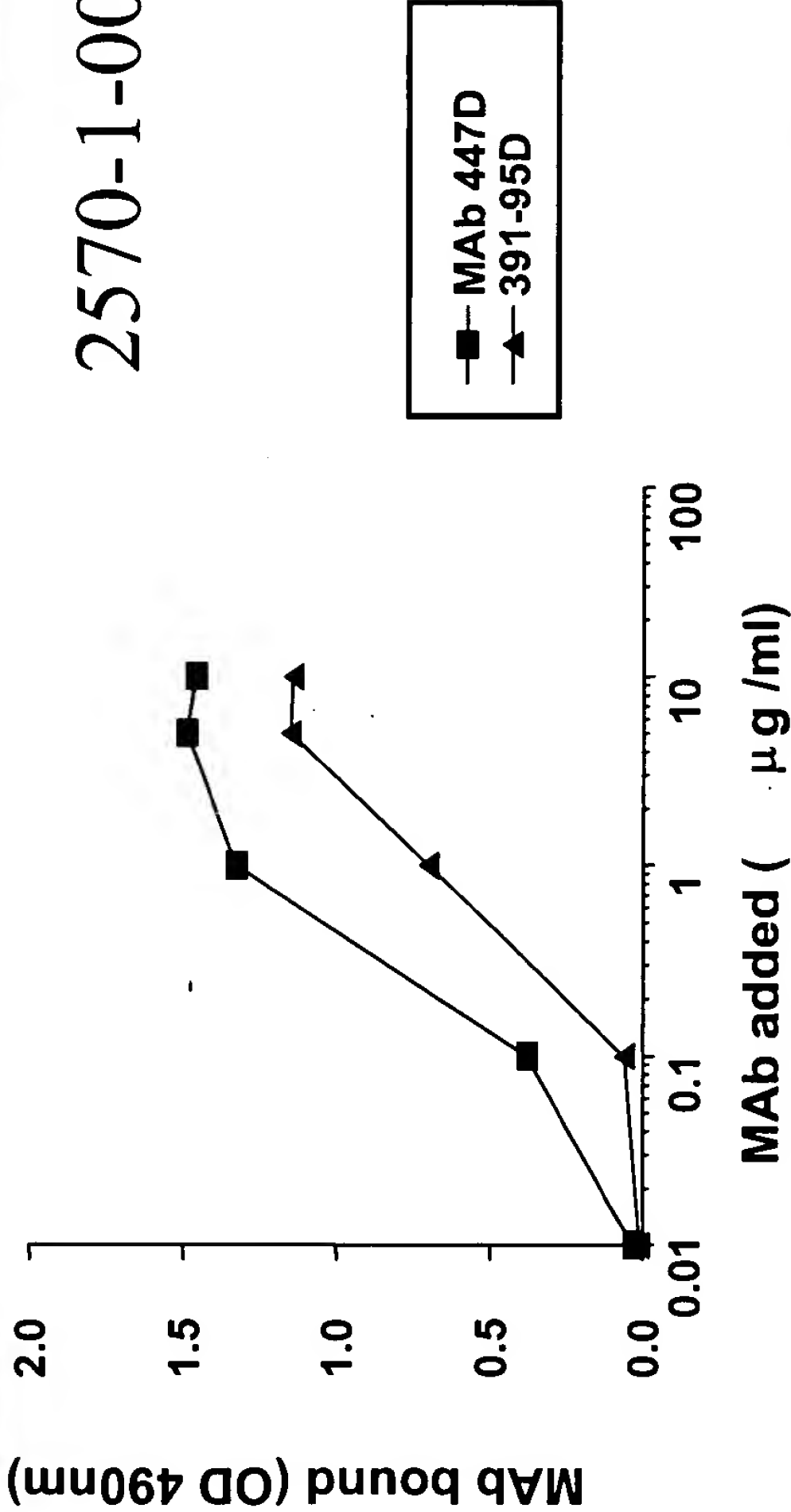
[illegible]

2570-1-001N FIGURE 10



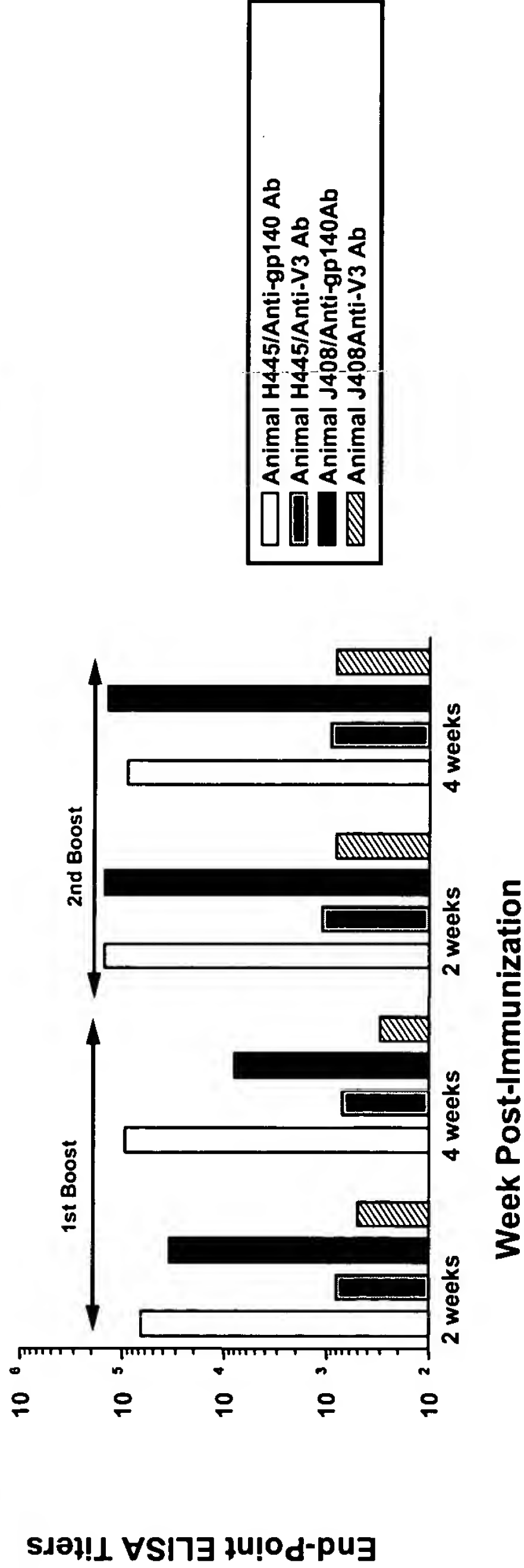


(A) Binding of Anti-V3 loop MAbs
to the SF162 Δ V2-derived V3 loop peptide

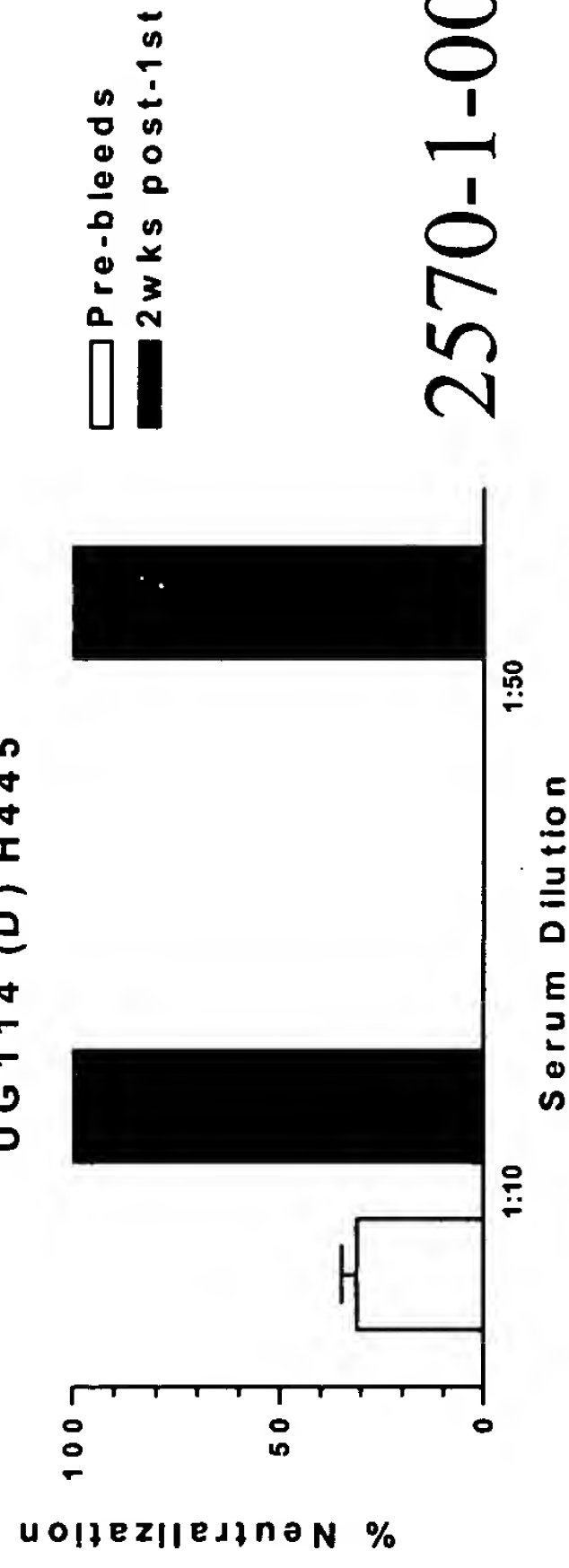
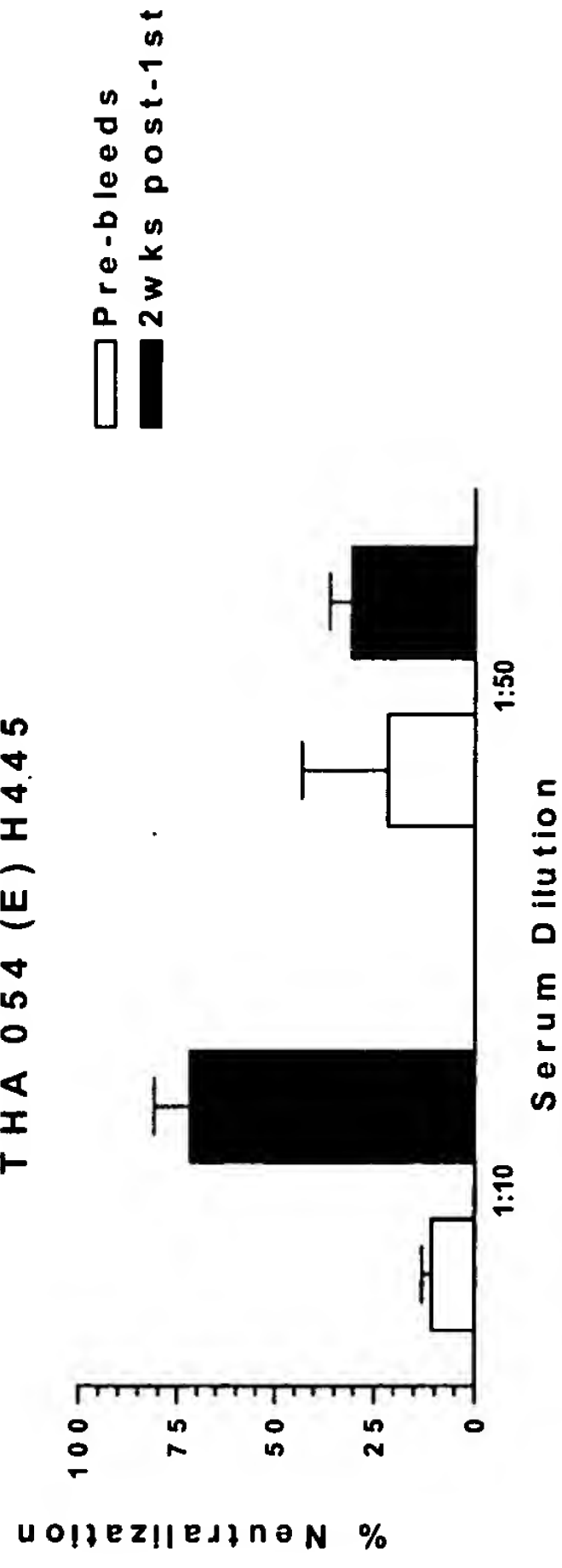
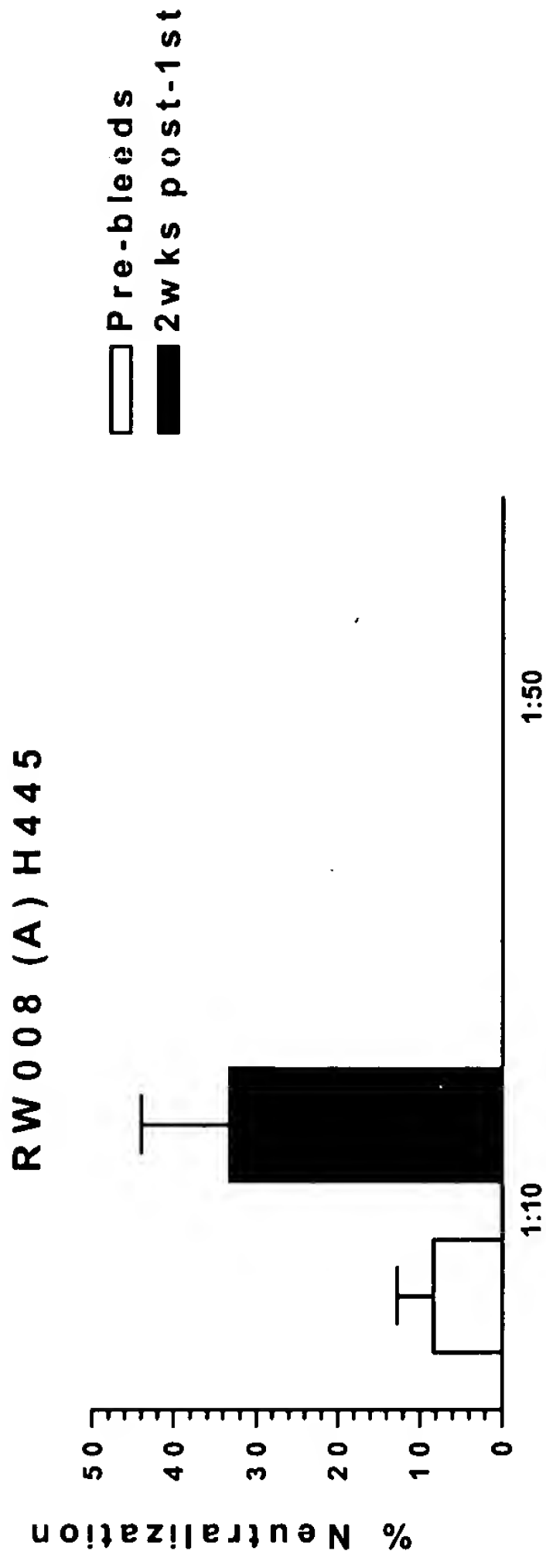


2570-1-001N FIGURE 12A-B

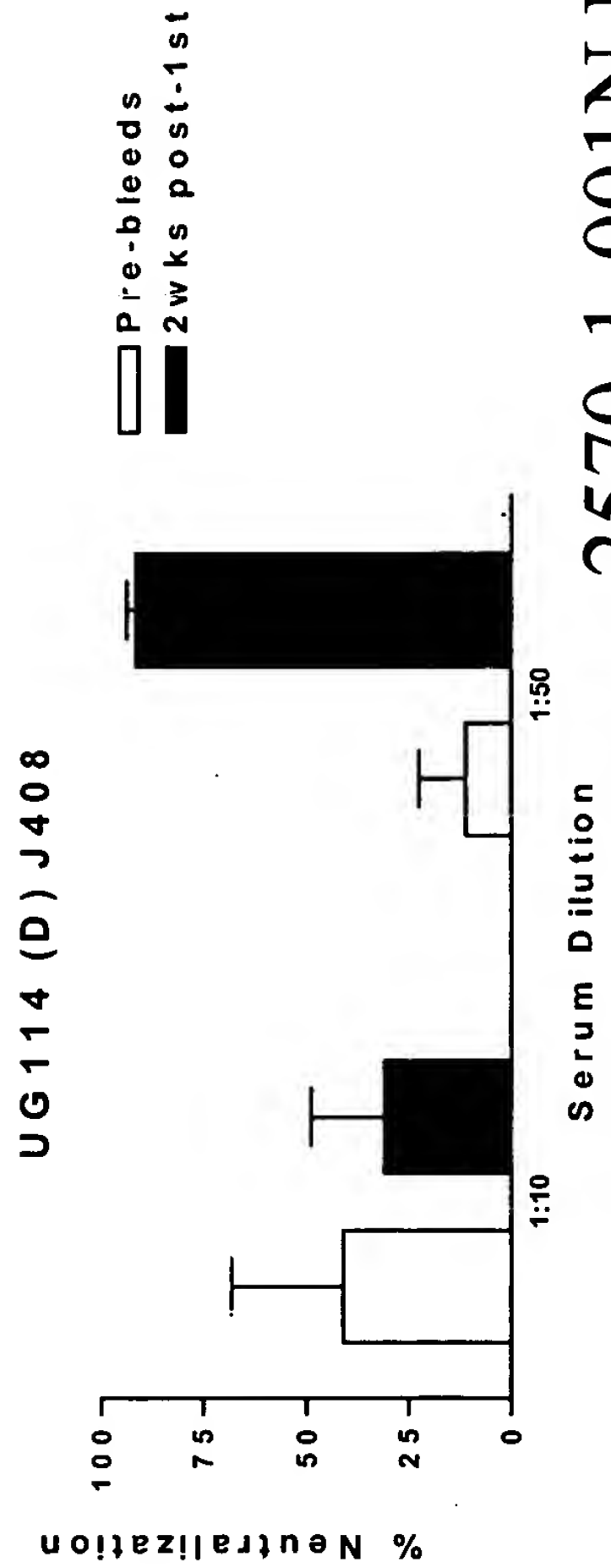
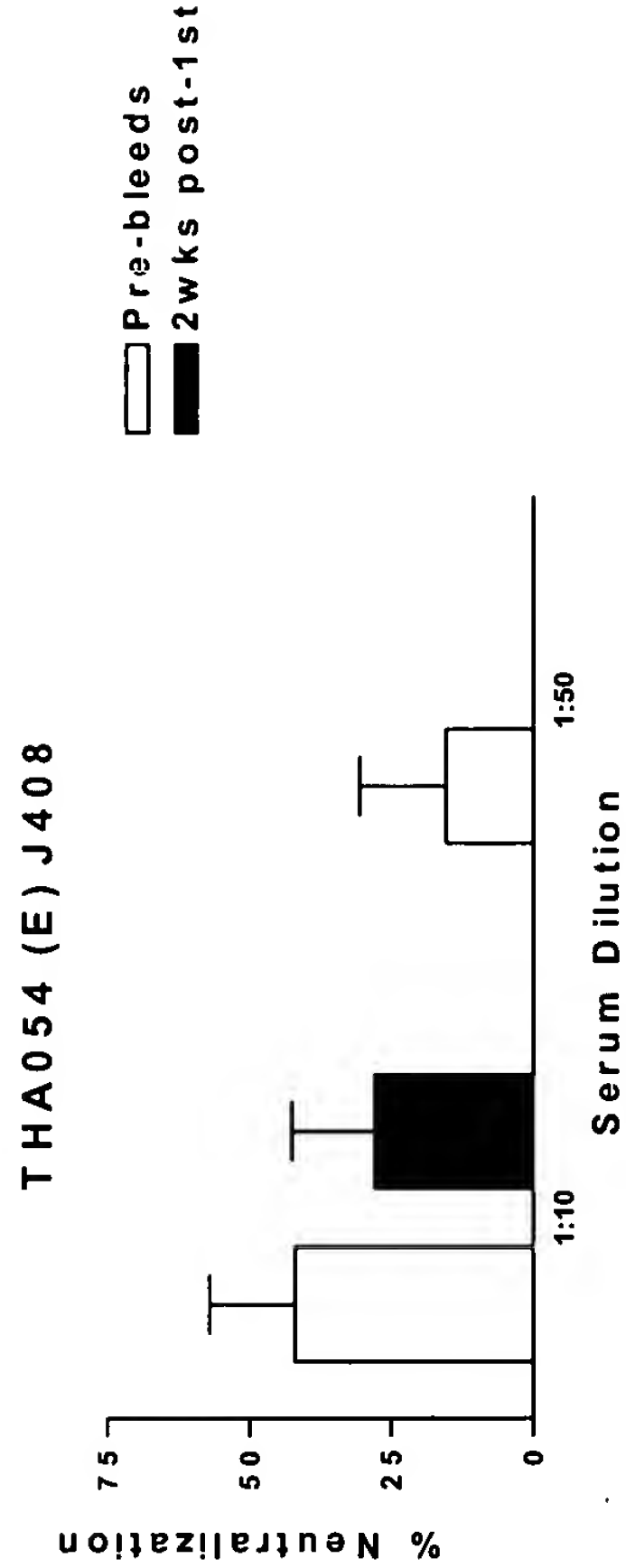
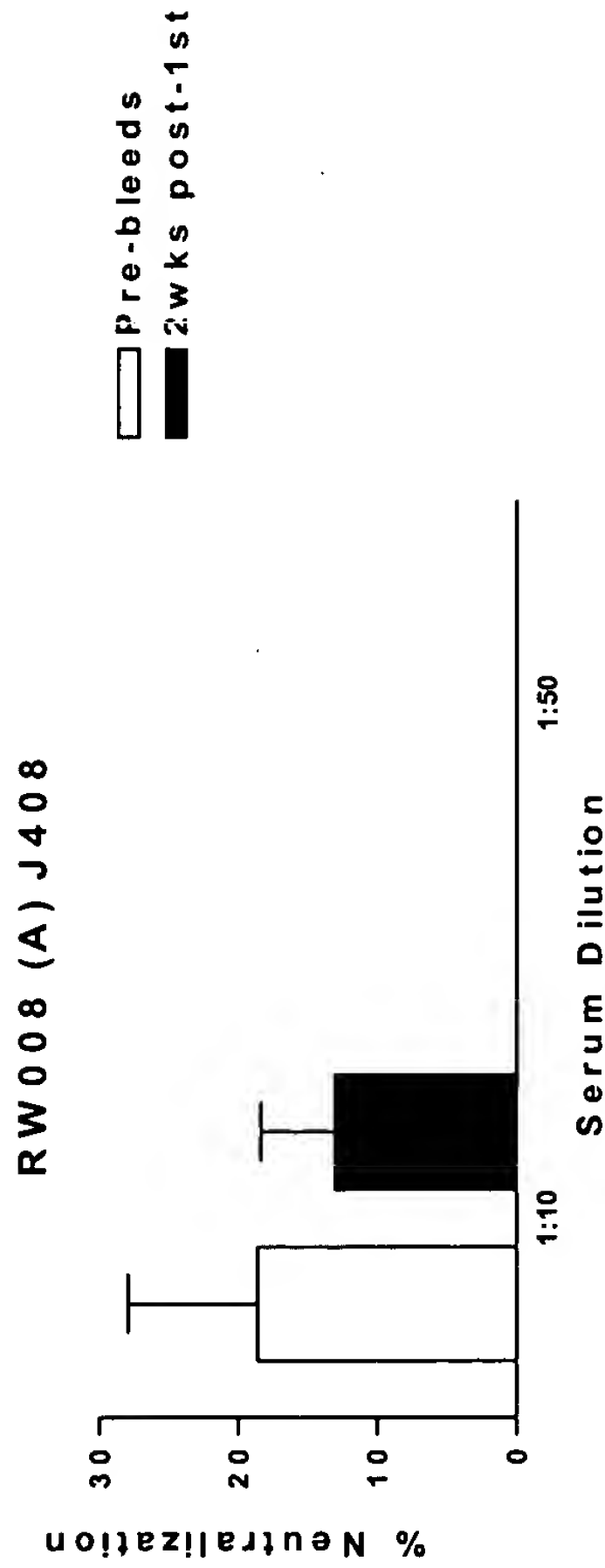
(B) Binding of macaque serum antibodies to the
protein and the corresponding V3 loop peptide Δ V2gp140



Neutralization of clade A, E and D HIV-1 viruses from
sera collected from animal H445



Neutralization of clade A, E and D HIV-1 isolates from sera collected from animal J408



2570-1-001N

atgagagtg aaggggatca ggaagaatta tcagcacttg tggagagggg gcaccttgct
 ccttggggatg ttgatgatct gtagtgctgt agaaaaatg tgggtcacag tctattatgg
 ggtacacctgtg tggaaagaag caaccaccac tctattttgt gcatcagatg ctaaagccta
 tgacacagag gtacataatg tctggggccac acatgcctgt gtaccacag accctaacc
 acaagaaata gtattggaaa atgtgacaga aaattttaac atgtggaaaa ataacatggt
 agaacagatg catgaggata taatcagttt atgggatcaa agtctaagc catgtgtaaa
 gttaacccca ctctgtgtta ctctacattg cactaattg aagaatgcta ctaataccaa
 gagtagtaat tggaaagaga tggacagagg agaaataaaa aattgctctt tcaaggtc

-GGA-GCT-GGA-

aa attgataaat tgtaacacct cagtcattac
 acaggcctgt ccaaagggtat ccttgaacc aattcccata cattatttg cccggctgg
 ttttgcgatt ctaaagtgtg atgataagaa gttcaatgga tcaggaccat gtacaaatgt
 cagcacagta caatgtacac atggaattag gccagtagtg tcaactcaat tgctgttaaa
 tggcagtcta gcagaagaag gggtagtaat tagatctgaa aatttcacag acaatgctaa
 aactataata gtacagctga aggaatctgt agaaattaat tgtacaagac ctaacaataa
 tacaagaaaa agtataacta taggaccggg gagagcattt tatgcaacag gagacataat
 aggagatata agacaagcac attgtaacat tagtggagaa aaatggaata acactttaaa
 acagatagtt acaaaattac aagcacaatt tgggaataaa acaatagtct ttaagcaatc
 ctcaggaggg gaccagaaa ttgtaatgca cagttttaat tgtggagggg aatttttcta
 ctgtaattca acacagcttt ttaatagtac ttggaataat actatagggc caaataacac
 taatggaact atcacactcc catgcagaat aaaacaaat ataacaggt ggcaggaagt
 aggaaaaagca atgtatgccc ctcccatcag aggacaaaat agatgctcat caaatattac
 aggactgcta ttaacaagag atggtggtaa agagatcagt aacaccaccg agatcttcag
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 aaaaattgag ccattaggag tagcaccac caaggcaaa agaagagtgg tgcagagaga
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 tatggggcgca cggtcactga cgctgacggt acaggccaga caattattgt ctggtatagt
 gcaacagcag acaatttgc tgagagctat tgaggcgcaa cagcatctgt tgcaactcac
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 tcaacagctc ctagggattt ggggttgctc tggaaaactc atttgcacca ctgctgtgcc
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 ggagtgggag agagaaattg acaattacac aaacttaata tacaccttaa ttgaagaatc
 gcagaaccaa caagaaaaga atgaacaaga attattagaa ttggataagt gggcaagttt
 gtggaattgg ttgacatat caaatggct gtggtatata aaa

agtgctgt agaaaaattg tgggtcacag tctattatgg
 ggtacctgtg tggaaagaag caaccaccac tctattttgt gcatcagatg ctaagcccta
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 acaagaaata gtattggaaa atgtgacaga aaattttaac atgtggaaaa ataacatggt
 agaacagatg catgaggata taatcagttt atgggatcaa agtctaaagc catgtgtata
 gttaacccca ctctgtgtta ctctacatg cactaatttg aagaatgcta ctaataccaa
 gagtagtaat tggaaaagaga tggacagagg agaaataaaa aattgctctt tcaaggtc
 -GGA-GCT-GGA-
 aa attgataaat tgtaacacct cagtcattac
 acaggcctgt ccaaagggtat ctttgaacc aattcccata cattattgtg cccggctgg
 ttttgcgatt ctaaagtgtg atgataagaa gttcaatgga tcaggaccat gtacaaatgt
 cagcacagta caatgtacac atggaattag gccagtagtg tcaactcaat tgctgttaaa
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 aggactgcta ttaacaagag atggtggtaa agagatcagt aacaccaccg agatcttcag
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 aaaaattgag ccattaggag tagcaccac caaggcaag agaagagtgg tgcagagaga
 aaaaagagca gtgacgctag gagctatgtt ccttgggttc ttgggagcag caggaaagcac
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 ttggaatgct agttggagta ataatctct ggatcagatt tggaataaca tgacctggat
 ggagtgggag agagaaattg acaattacac aaacttaata tacaccttaa ttgaagaatc
 gcagaaccaa caagaaaaa atgaacaaga attattagaa ttggataagt gggcaagttt
 gtggaattgg tttgacatat caaatggct gtggtatata aaa

TGGGGG"GGGGGG

Amino acid sequence of SF162DV2 gp140

MRVKGIRK^{NY}QHLWRGGTLLGMLMICS^AVEKLWVTVYYG
VPVWKEAT^{TT}LF^CASDAKA^{YD}TEVHN^{VW}ATHACVPTD^{PN}PQ
EIVLE^{NT}ENFNMWKN^{NM}VEQM^{HEDI}SLWDQSLKPC^VKL^T
PLCV^{TL}HCTNL^{KN}ATNTKSS^{NW}KEMDRGEIK^{NC}SFK^V-GAG-
KLINC^{NT}SVITQACPK^{VS}FEPIPIHYCAPAGFAILK^{CND}KK^{FN}
GSGPCT^{NV}STVQCTHGIRP^{VV}STQ^{LL}NGSLAE^{EG}VVIRSE^{NF}
TDNAK^{TI}VQLKES^{VE}INC^{TR}PN^{NN}TRK^{SIT}IGP^{GRA}FYA^TGDI
IGDIRQAHC^{NI}SGEK^{WN}N^{TL}KQIV^{TK}LQAQ^{FG}N^{KT}IVFK^QSS
GGDPEIV^{MH}SFNC^{GE}FFYC^{NS}TQ^{LF}NS^{TW}NN^{TIG}PN^{NT}NG
TITLPCRIK^{QI}NRWQ^{EV}GKAMYAPP^{IR}GQIRC^{SS}NITGL^{LL}L^{TR}
DGGKEIS^{NT}TEIFRPGGDMRD^{NW}RSEL^{YK}YK^{VV}KIEPLGV
APTKAKRR^{VV}QREKRA^{VT}LGA^{MF}L^GFLGAAGSTMGARSL
TLTVQARQL^{LS}GIVQQ^{NN}LLRAIEAQQ^{HLL}QLTVWGI^KLQ
ARVLAVERY^{LK}DQQLGIWGC^{SG}KLIC^{TT}AVPW^{NA}SW^SNK
SLDQIW^{NN}MTWMEWEREID^{NY}TN^{LI}YTLIEESQ^{NQ}Q^QEKNE
QELLELDKWASLWNWFDISKWLWYIK

2570-1-001N FIGURE 16

TGGGGGCGTGGG

Amino acid sequence of SF162DV2 gp140 less 27 amino acid N-terminal

SAVEKLWVTVYYG
VPVWKEATTTLFCASDAKAYDTEVHNVWATHACVPTDPNPQ
EIVLENVTENFNMWKNNMVEQMHEDIISLWDQSLKPCVKLT
PLCVTLHCTNLKNA¹TNTKSSNWKEMDRGEIKNC²SKV-GAG-
KLINCNTSVITQACPKVSFEP³PIHYCAPAGFAILKCNDKKFN
GSGPCTNVSTVQCTHGIRPVVSTQ⁴LLNGSLAEEGVVIRSENF
TDNAKTIIVQLKESVEIN⁵CTRPNNNTRK⁶SITIGPGRAFYATGDI
IGDIRQAHCNISGEKW⁷NNTLKQIVTKLQAQFGNKTIVFKQSS
GGDPEIVMHSFNCGGEFFYC⁸NSTQLFNSTW⁹NNTIGPN¹⁰NTNG
TITLPCRIKQI¹¹NRWQEVGKAMYAPP¹²IRGQIRCSSNITGLLLTR
DGGKEISNTTEIFRPGGGDMRD¹³NWRSEL¹⁴YKYKVVKIEPLGV
APTKAKRRVVQREKRAVTLGAMFLGFLGAAGSTMGARSL
TLTVQARQLLSGIVQQQNNLLRAIEAQQHLLQLTVWG¹⁵IKLQ
ARVLAVERYLKDQQLGIWGC¹⁶SGKLICTTAVPWN¹⁷ASWSNK
SLDQIWNNMTWMEWEREIDN¹⁸YTNLIYTLIEESQNQQEKNE
QELLELDKWASLWNWFDISKWLWYIK

2570-1-001N FIGURE 17